

REMARKS

Claims 3-12 are pending. Claims 4 and 6 have been amended to positively recite in the body of the claim that the printing is produced from an ink jet printer. Support for this amendment can be found throughout the specification and in particular at pages 7-8 and the claims as originally filed. By way of this amendment claims 13-16 have been added to the application. Support for claims 13-15 can be found at page 8, line 23 to page 9, line 3. Support for new claim 16 can be found at page 10, lines 2-8. No new matter has been added. The Applicants respectfully request entry of the following amendment.

In the Office Action mailed November 24, 2006, the Examiner rejected Claims 4 and 6 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In making the rejection, the Examiner contends that the specification does not disclose a printing system having only four colors or only five colors, but rather a printing system having at least four or at least five colors. (See Office Action, page 2).

The Applicants respectfully disagree. The specification discloses a printing system having at least four colors or at least five colors as is acknowledged by the Examiner in making the rejection. It is respectfully asserted that the range specifically reciting “at least 4” and “at least 5” provides *in haec verba* support for an ink jet printing system having 4 colors and/or an ink jet printing system have 5 colors as claimed. Therefore, in view of the foregoing it is respectfully requested that the rejection of claims 4 and 6 for lack of written description be reconsidered and withdrawn.

In the Office Action, claims 3, 4, 6, 9, 11, and 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hilgenfeld et al (US 6,391,388) in view of Tomioka et al. (US 20020062762). As stated in the previous response Hilgenfeld does not teach or suggest an ink jet printing method. In addition, as acknowledged by the Examiner, Hilgenfeld et al. does not teach, an ink receptor layer formed using glass frit on a surface of a base material prior to ink jet recording, or simultaneously baking of all of the inorganic pigments after the printing and image formation by a single baking operation. Instead, the Examiner attempts to combine Tomioka et al. with Hilgenfeld in order to

teach the aforementioned deficiencies. Tomioka et al. is directed to a method of measuring liquid composition, such as an ink set, and a method for forming colored portions on recording medium and an ink jet recording apparatus. (Title/Abstract). For the reasons stated below Tomioka fails to teach or suggest the improved ink jet printing method of the present invention.

The present invention is directed to an improved ink jet printing method for printing using an ink jet printer that avoids the discoloration upon baking. Previously, baking of each particular color pigment had to be carried out to avoid discoloration, which was time-consuming. As set forth in the claims, especially new dependent claims 12-16, the present invention explicitly provides ink jet printing of superiorly clear images not subject to discoloration during baking, permitting representation of intermediate colors having a wider color region. (See new claim 16). Hilgenfeld fails to teach, and Tomioka fails to correct this deficiency, the baking or firing of the base material once the ink jet process is complete.

Moreover, in Hilgenfeld, the specific printing inks are mixed in advance of application (See Hilgenfeld Example 1 at column 5, line 53). In conventional screen-printing as disclosed in Hilgenfeld, it is necessary to mix the primary colors in advance to obtain desired coloring. In stark contrast, the ink jet printing of the present invention provides the colorants to the base material separately and does not pre-mix the colors prior to providing them to the base material. Tomioka does not correct this factual deficiency. Accordingly, for this additional reason the rejection under 35 U.S.C. §103(b) over Hilgenfeld in view of Tomioka must be reconsidered and withdrawn.

In the Office Action, Claim 5 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hilgenfeld et al. and Tomioka et al. and further in view of Minami. As stated above, neither the primary reference Hilgenfeld nor Tomioka, teaches or suggests the use of ink jet printing as required by the claimed invention. The Examiner has referenced Minami to correct this factual defect. Although Minami may teach an ink jet printing method, Minami does not teach or suggest baking or firing the base material once the ink jet process is complete. Therefore, the combination of Hilgenfeld, Tomioka in view of Minami does not teach or suggest the invention as set forth in Claim 5. Accordingly, the Applicants respectfully

request that the rejection of Claim 5 under 35 U.S.C. § 103(a) over Hilgenfeld in view of Tomioka et al. and further in view of Minami be reconsidered and withdrawn.

In the Office Action, Claims 7,8 and 10 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hilgenfeld in view of Tomioka and further in view of JP 2001081363 to Oishi et al. (herein "Oishi").

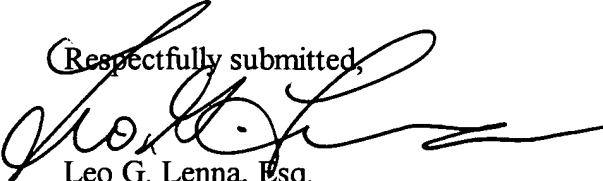
As with rejection of claim 5 discussed above, neither Hilgenfeld nor Tomioka teaches or suggest baking or firing the base material once the ink jet process is complete. A review of Oishi indicates that Oishi does not correct this factual deficiency. For this reason alone, it is respectfully requested that this rejection be reconsidered and withdrawn.

Moreover, although Oishi does describes ink jet printing in general, Oishi specifically requires "at least six elements which are and inorganic pigment" (See Abstract) and does not teach or suggest a four or five color ink set as used in the present invention. In fact, one skilled in the art after reading Hilgenfeld would be lead away from using the teachings of Oishi since Hilgenfeld teaches 1) screen printing and 2) that it is necessary to mix the primary colors in advance in order to obtain desired coloring wherein the Oishi discusses ink jet printing and does not require premixing. In essence to combine the teachings of Oishi with the teachings of Hilgenfeld would in affect destroy the inventive intent behind the Hilgenfeld reference.

Furthermore, neither Hilgenfeld nor Tomioka mention that there is any problems with premixing colorants and using screen printing as disclosed therein and therefore does not provide the necessary motivation to one skilled in the art to look beyond the teachings in Hilgenfeld and combine it with the teachings of another reference, especially Oishi since the combination of the two references would in affect destroy the inventive intent behind the Hilgenfeld reference. Therefore, Hilgenfeld does not provide any motivation to combine the two references, an element that must be present in order for an obviousness rejection to be maintained.

In view of the above amendments and remarks, it is respectfully submitted all pending claims herein are in condition of allowance. Should the Examiner have any questions, it is respectfully requested that he contact the undersigned attorney.

Early favorable action is earnestly solicited.

Respectfully submitted,

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